

REMARKS

In response to the Final Office Action mailed June 21, 2009, and pursuant to an RCE filed concurrently herewith, Applicants respectfully request reconsideration. Claims 1-20 and 23-25 were previously pending in this application. By this amendment, claims 1, 3-8, 10-20, 23 and 25 have been amended. Claim 28 has been added. Claims 2 and 9 have been canceled without prejudice or disclaimer. As a result, claims 1, 3-8, 10-20, 23-25 and 28 are pending for examination, with claims 1, 16-20, 23, and 25 being independent claims. No new matter has been added.

Examiner's Response to Arguments

On page 2 of the Office Action, the Examiner asserts that Applicants' arguments with respect to claims 1 and 16-20 are moot because the amendments resulted in new rejections. Applicants respectfully disagree. Specifically, the Office Action maintains the rejection of claims 1 and 16 under 35 U.S.C. §103 as being unpatentable over Chow in view of Ayyagari. Applicants' arguments presented in the response dated March 24, 2009 specifically address how claims 1 and 16 distinguish over the Chow and Ayyagari combination. Accordingly, the arguments are relevant to the outstanding rejection of these claims.

For the Examiners convenience, these arguments are restated in the present response. If the Examiner wishes to maintain the rejection of claims 1 and 16 as unpatentable over the combination of Chow and Ayyagari, Applicants respectfully request the Examiner to specifically address Applicants' arguments as presented herein.

Rejections Under 35 U.S.C. §103

I. Claims 1, 2, 9, 16 and 23-25 are rejected under 35 U.S.C. 103(a) based on Chow, U.S. Patent No. 6,771,996 (hereinafter Chow) in view of Ayyagari et al., U.S. Patent Publication No. 2002/0101822 (hereinafter Ayyagari). Applicants respectfully traverse the rejections to the extent they are maintained over the claims as amended herein.

Independent Claim 1

Claim 1, as amended, is directed to a method for determining placement locations of Internet Transit Access Points (ITAPs) in a network. Claim 1 recites, *inter alia*:

selecting, as a new ITAP for the network, the test ITAP from the set of potential ITAPs having a maximum computed value of the node demands satisfied when opened together with ITAPs in the set of currently open ITAPs;

Claim 1 clearly distinguishes over the cited references. Chow describes a “process to provide the best set of radio links or radio topology once the nodes and radio sites have been identified” (col. 9, lines 48-50). Specifically, Chow describes an iterative process for selecting and eliminating links that is repeated “until the engineer is satisfied with the layout” (col. 9, lines 66-67). By contrast, claim 1 recites “selecting, as a new **ITAP** for the network, the test **ITAP**.” Internet Transit Access Points (ITAPs) are not equivalent to the links described by Chow. For example, ITAPs are a type of access points which in turn are a type of node in a network. The distinction between links and nodes is well understood in the art. In fact, Chow makes a clear distinction between links and nodes. For example, col. 10, lines 3-7 of Chow states “if n represents the number of radio sites in a metropolitan area, then the number of possible links to join n nodes is $n(n-1)/2$. Additionally, the number of radio links which is necessary to connect n radio sites is $n-1$.” Chow does not treat nodes and links as synonymous. Rather, Chow states that links join nodes. Accordingly, Chow’s process of selecting links simply does not disclose or suggest “selecting... the test ITAP” as recited by claim 1. As Chow does not describe selecting an ITAP, Chow certainly fails to disclose or suggest “selecting, as a new ITAP for the network, the test ITAP from the set of potential ITAPs having a maximum computed value of the node demands satisfied.” Ayyagari, which is cited to show contention-based MAC, does not cure the deficiencies of Chow.

As a further reason that the references do not meet the limitations of the claim, claim 1 also recites “adding the selected new ITAP to the set of currently opened ITAPs.” The Office Action purports that Chow’s “iterative process” described in col. 9, lines 66-67 discloses these features. As discussed above, Chow’s iterative process is a “process to provide the best set of

radio links or radio topology *once the nodes and radio sites have been identified*" (col. 9, lines 48-50). Chow's process presupposes that node placement has been completed. It is only after the nodes and radio sites have been identified that Chow's method is used to optimize the links formed between the nodes. By contrast, claim 1 is directed to a method for determining placement locations of Internet Transit Access Points and specifically recites "adding the selected new *ITAP* to the set of currently opened ITAPs."

Accordingly, claim 1 patentably distinguishes over the prior art of record, so that the rejection of claim 1 under 35 U.S.C. §103 should be withdrawn.

Claims 3-8 depend from claim 1 and are patentable based at least upon their dependency. Withdrawal of the rejection of claims 3-8 is respectfully requested.

Independent Claim 16

Claim 16, as amended, is directed to a method for determining placement locations of Internet Transit Access Points (ITAPs) in a network. Claim 16 recites, *inter alia*:

- selecting an ITAP, from the set of potential ITAPs to be opened, to be added to a set of currently open ITAPs;
- computing node demands satisfied if the selected ITAP is added to the set of currently open ITAPs;
- when the computing indicates the selected ITAP increases the node demands satisfied when opened together with ITAPs in the set of currently open ITAPs, *adding the selected ITAP to the set of currently opened ITAPs*; (emphasis added)

Claim 16 clearly distinguishes over the cited references. It should be clear from the discussion of the references in connection with claim 1 that the prior art of record fails to disclose or suggest "*adding the selected ITAP to the set of currently opened ITAPs*" as recited in claim 16. Chow certainly does not describe adding the selected ITAP "when the computing indicates the selected ITAP increases the node demands satisfied when opened together with ITAPs in the set of currently open ITAPs."

Accordingly, claim 16 patentably distinguishes over the prior art of record, so that the rejection of claim 16 under 35 U.S.C. §103 should be withdrawn.

Claims 10-15 depend from claim 16 and are patentable based at least upon their dependency. Withdrawal of the rejection of claims 10-15 is respectfully requested.

Independent Claims 17-20

Independent claims 17-20 each recite a step of adding a node to the set of current open nodes. More specifically, claim 17 recites “adding the selected *access point* to the set of currently opened access points,” claim 18 recites “adding the selected new first *node* to the set of currently opened first nodes,” claim 19 recites “adding the selected new *ITAP* to the set of currently opened ITAPs, where ITAP stands for Internet Transit Access Point,” and claim 20 recites “adding the selected *Internet access node* to the set of currently opened Internet access nodes.”

It should be clear from the discussion of the references in connection with claim 1 that the prior art of record fails to satisfy at least one limitation of each of claims 17-20.

Accordingly, claim 17-20 patentably distinguish over the prior art of record, so that the rejection of claims 17-20 under 35 U.S.C. §103 should be withdrawn.

Claim 28 depends from claim 20 and is patentable based at least upon its dependency. Withdrawal of the rejection of claim 28 is respectfully requested.

Independent Claim 23 and 25

Independent claims 23 and 25 relate to a method and computer-readable storage medium having instructions for reducing potential placement locations of Internet Transit Access Points (ITAPs).

Applicants' claims 23 and 25 include a limitation on determining whether a first equivalence class and a second equivalence class are covering the same locations. The Office Action generally cites column 2, lines 47-58 of Chow as meeting the limitations of these claims. This passage describes the fault in establishing links without regard to any other links. Namely, that unavoidable interference from existing links may make establishing the link impossible. For reasons discussed above with reference to claim 1, it should be clear that equivalence classes of

nodes in the network which may be serviced by the same Internet Transit Access Point (ITAPs) are not equivalent to Chow's links. Chow is silent on equivalence classes and certainly does not disclose or suggest "determining whether a first equivalence class is covered by a second equivalence class" as recited by claims 23 and 25. The Office Action asserts on page 2 that column 2, lines 47-58 of Chow provides the documentary evidence showing it was general knowledge that a second equivalence class as recited in claims 23 and 25 can be interpreted as a class with a known or previously selected location. As discussed above, Chow provides no such teaching or suggestion.

Accordingly, claims 23 and 25 patentably distinguishes over the prior art of record, so that the rejection of claims 23 and 25 under 35 U.S.C. §103 should be withdrawn.

Claim 24 depends from claim 23 and is patentable based at least upon its dependency. Therefore, withdrawal of rejection of claim 24 is respectfully requested.

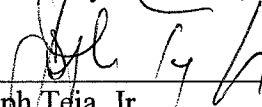
CONCLUSION

In view of the above amendment, applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 23/2825 under Docket No. M1103.70167US00 from which the undersigned is authorized to draw.

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Respectfully submitted,

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